

## CLAIMS

What is claimed is:

1. A code generating system, comprising:  
a compiler that receives source code and generates an object file comprising  
object code and intermediate code;  
a code optimizer coupled to the compiler; and  
a linker that receives the object file comprising object code and intermediate  
code and provides the intermediate code to the code optimizer.
2. The code generating system of claim 1 wherein the code optimizer produces  
optimized intermediate code that has been processed by a optimization algorithm.
3. The code generating system of claim 1 wherein the linker produces executable  
code.
4. The code generating system of claim 1 wherein the linker sends only portions of  
the intermediate code to the code optimizer.
5. The code generating system of claim 1 wherein the intermediate code generated  
by the compiler is stored in non-volatile memory.
6. The code generating system of claim 1 wherein the intermediate code generated  
by the compiler is stored in a magnetic storage device.

7. The code generating system of claim 1 wherein the object files comprising object code and intermediate code may comprise a library.

8. A method to optimize a program consisting of a plurality of source files, the method comprising:

producing intermediate code associated with one or more of the plurality of source files;

producing object code associated with one or more of the plurality of source files;

merging the intermediate code and the object code associated with each source

file into an object file comprising object code plus intermediate code; and

optimizing the program by providing the intermediate code in the object file to a code optimizer.

9. The method of claim 8 wherein the producing intermediate code further comprises storing the intermediate code into a magnetic storage device.

10. The method of claim 8 wherein the producing intermediate code further comprises storing the intermediate code in non-volatile memory.

11. The method of claim 8 wherein optimizing the program further comprises receiving optimized intermediate code from the code optimizer and producing optimized executable code.

12. A storage medium containing instructions that are executed by a processor and comprising:

instructions that produce intermediate code from one or more source files;

instructions that produce object code from one or more source files;

instructions that merge the intermediate code and the object code associated with one of the source files into a single intermediate plus object code file; and

instructions that provide the intermediate code contained in the single intermediate plus object code file to a code optimizer.

13. The storage medium of claim 12 wherein the instructions that produce intermediate code further comprises instruction for storing the intermediate code into a magnetic storage device.

14. The storage medium of claim 12 wherein the instructions that produce intermediate code further comprises instruction for storing the intermediate code in non-volatile memory.

15. The storage medium of claim 12 wherein the instructions that produce intermediate code to a code optimizer further comprises instructions for producing optimized object code.

16. A computer system, comprising:  
a processor,  
memory coupled to the processor;  
a code generating system stored in the memory and executable on the processor  
and that produces intermediate code and object code that is stored into a  
single intermediate plus object code file and provided to a code optimizer.
17. The computer system of claim 16 wherein the intermediate code produced by the  
code generating system is stored into a magnetic storage device.
18. The computer system of claim 16 wherein the intermediate code produced by the  
code generating system is stored into non-volatile memory.